Appl. No. 10/667,958
Atty. Docket No. CM2632MC
Amdt. dated 28-Sep-2006
Reply to Office Action of 28-Mar-2006
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A composition suitable for treating hair comprising:

a) an oxidizing agent; and

b) a chelant (L) having a $\frac{\log K_{CuL}}{\log K_{CaL}}$ ratio calculated at pH 10 of at least about 3.20[[;]], wherein $\log K_{CuL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Cu^{2+} and $\log K_{CaL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Ca^{2+};

wherein said chelant is an aminocarboxylic acid chelant selected from the group consisting of ethylenediamine-N,N'-disuccinic acid (EDDS), ethylenediamine-N,N'-diglutaric acid (EDDG), 2-hydroxypropylenediamine-N,N'-disuccinic acid (HPDDS), glycinamide-N,N'-disuccinic acid (GADS), ethylenediamine-N-N'-bis(ortho-hydroxyphenyl acetic acid) (EDDHA), and salts thereof, derivatives thereof and mixtures thereof; and

wherein said chelant is present at a level of at least about 0.1% by weight of the composition.

2. (Previously Presented) A composition according to claim 1, wherein said chelant has a Hydrogen Peroxide Decomposition Ratio (% Loss) of less than about 3.5% as measured by the Hydrogen Peroxide Decomposition Ratio Measurement Protocol.

3. (Previously Presented) A composition according to claim 1, wherein said chelant is capable of forming a hexadendate complex with Cu^{2+}.

4. (Canceled)

5. (Original) A composition according to claim 1, wherein said composition is in the form of an oil-in-water emulsion.

6. (Original) A composition according to claim 1, wherein said composition is in the form of a thickened aqueous solution.

7. (Original) A composition according to claim 1, wherein said oxidizing agent is present at a level of from about 0.1% to about 40% by weight of said composition and is selected from water-soluble oxidizing agents and mixtures thereof.

8. (Original) A composition according to claim 7, wherein said oxidizing agent comprises hydrogen peroxide.

9. (Previously Presented) A composition according to claim 1, wherein said chelant is present at a level of from about 0.1% to about 10% by weight of said composition.

10. (Original) A composition according to claim 1, further comprising at least one oxidative hair dye precursor.

11. (Currently Amended) A method of treating hair, said method comprising the steps of:

i) contacting hair with a first composition comprising a chelant (L) having a $\frac{\log K_{CuL}}{\log K_{CaL}}$ ratio calculated at pH 10 of at least about 3.20; and

ii) contacting hair with a second composition comprising an oxidizing agent immediately after step i);

wherein $\log K_{CuL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Cu^{2+} and $\log K_{CaL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Ca^{2+}; and

wherein said chelant is an aminocarboxylic acid chelant selected from the group consisting of ethylenediamine-N,N'-disuccinic acid (EDDS), ethylenediamine-N,N'-diglutaric acid (EDDG), 2-hydroxypropylenediamine-N,N'-

disuccinic acid (HPDDS), glycinamide-N,N'-disuccinic acid (GADS), ethylenediamine-N-N'-bis(ortho-hydroxyphenyl acetic acid) (EDDHA), and salts thereof, derivatives thereof and mixtures thereof; and

wherein said chelant is present at a level of at least about 0.1% by weight of the first composition.

12. (Currently Amended) A method of treating hair, said method comprising the steps of:

i) contacting hair with a first composition comprising an oxidizing agent;

ii) contacting hair with a second composition comprising a chelant having a $\frac{\log K_{CuL}}{\log K_{CaL}}$ ratio calculated at pH 10 of at least about 3.20; and

iii) contacting hair with a third composition comprising a second oxidizing agent;

wherein steps i) and iii) are separated by at least 1 day and step ii) does not take place immediately before step iii);

wherein $\log K_{CuL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Cu^{2+} and $\log K_{CaL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Ca^{2+};

wherein said chelant is an aminocarboxylic acid chelant selected from the group consisting of ethylenediamine-N,N'-disuccinic acid (EDDS), ethylenediamine-N,N'-diglutaric acid (EDDG), 2-hydroxypropylenediamine-N,N'-disuccinic acid (HPDDS), glycinamide-N,N'-disuccinic acid (GADS), ethylenediamine-N-N'-bis(ortho-hydroxyphenyl acetic acid) (EDDHA), and salts thereof, derivatives thereof and mixtures thereof; and

wherein said chelant is present at a level of at least about 0.1% by weight of the second composition.

13. (Original) A kit for dyeing hair comprising a first and a second compositions packaged in different containers, wherein said first composition comprises an oxidizing agent and said second composition comprises an oxidative dye precursor, wherein the resulting mixture of said first and second compositions is a composition according to claim 10.

14. (Original) A method of dyeing human hair, said method comprising the steps of:

i) mixing the first and second composition of a kit according to claim 13;

ii) contacting hair with the mixture obtained on step i);

iii) massaging said mixture into hair;

iv) retaining said mixture on the hair for an amount of time sufficient for mixture to dye the hair;

iv) rinsing off said composition with water.

15. (Previously Presented) A composition according to claim 1, wherein said composition has a pH from about 8 to about 12.

16. (Previously Presented) A method of treating hair according to claim 11, wherein said first composition is not rinsed off the hair before said second composition is applied to the hair.

17. (Currently Amended) A kit for treating hair comprising:

i) a first separately packaged composition comprising a chelant (L) having a $\frac{\log K_{CuL}}{\log K_{CaL}}$ ratio calculated at pH 10 of at least about 3.20, wherein $\log K_{CuL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Cu^{2+} and $\log K_{CaL}$ is the common logarithm of the Conditional Stability Constant of said chelant with Ca^{2+}[[,]];

wherein said chelant is an aminocarboxylic acid chelant selected from the group consisting of ethylenediamine-N,N'-disuccinic acid (EDDS), ethylenediamine-N,N'-diglutaric acid (EDDG), 2-hydroxypropylenediamine-N,N'-disuccinic acid (HPDDS), glycinamide-N,N'-disuccinic acid (GADS), ethylenediamine-N-N'-bis(ortho-hydroxyphenyl acetic acid) (EDDHA), and salts thereof, derivatives thereof and mixtures thereof; and

wherein said chelant is present at a level of at least about 0.1% by weight of the first separately packaged composition; and

ii) a second separately packaged composition comprising an oxidizing agent.